

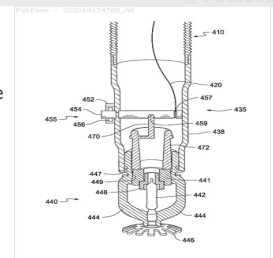
1) Family number: 56337350 (US2014174768A)

DRY SPRINKLER

Abstract: Source: US2014174768A A dry sprinkler is provided that includes a conduit with a fluid inlet and a fluid outlet, a valve positioned near the fluid inlet and a fire sprinkler head that is positioned near the fluid outlet. The fire sprinkler head is operably connected to the valve by a tie. When the fire sprinkler head reacts to an elevated temperature condition, the tie is engaged and is operable to open the valve. In a normal state, before the fire sprinkler head reacts, the tie can be unbiased toward the fire sprinkler head. The tie can also be non-rigid and/or in a non-compressed state within the conduit. The conduit of the dry sprinkler can be flexible.

Probable Assignee: VICTAULIC CO

Earliest Publication Date: 20140501



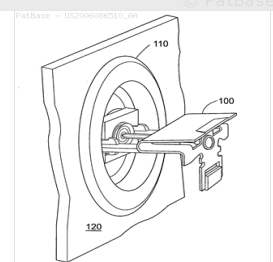
2) Family number: 32867030 (US2006086510A)

HORIZONTAL SIDEWALL FIRE PROTECTION SPRINKLERS

Abstract: Source: US2006086510A A horizontal sidewall fire protection sprinkler is provided, including a deflector having a vertical face, transverse to the fluid flow from the output orifice, and a horizontal shelf positioned above and perpendicular to the vertical face. A portion of the horizontal shelf extends in the fluid flow direction by a first length, with respect to the vertical face, and this first length is less than about half of a total length of the horizontal shelf in the fluid flow direction. The sprinkler is installed in a support cup having a raised mounting platform configured to receive the sprinkler body and a cylindrical outer surface, with a front edge in a fluid flow direction, and a back edge. The mounting platform of the support cup is closer to the front edge of the support cup in an axial direction thereof than to the back edge.

Probable Assignee: RELIABLE AUTOMATIC SPRINKLER CO INC

Earliest Publication Date: 20060427



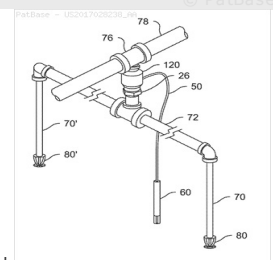
3) Family number: 64814248 (US2017028238A)

PREACTION SPRINKLER VALVE ASSEMBLIES, RELATED DRY SPRINKLER DEVICES AND FIRE PROTECTION SPRINKLER SYSTEMS

Abstract: Source: US2017028238A A thermal trigger assembly for remote mechanical actuation of another fire protection system component includes an activation component having a base and a movable member. A bias member biases the movable member from a preactivation to an activated position with respect to the base. A thermally responsive element retains the movable member in the preactivation position until a predetermined thermodynamic condition is reached, when the thermally responsive element loses structural integrity. A flexible connector includes a flexible hollow outer cable housing with one end configured to be stationarily (preferably fixedly) connected with the base. A flexible cable is inside the outer cable housing for sliding movement therein and has one end configured to be stationarily (preferably fixedly) connected with the movable member. The flexible cable is moved with respect to the outer cable housing by movement of the movable member upon loss of structural integrity by the thermally responsive element.

Probable Assignee: VICTAULIC CO

Earliest Publication Date: 20170202



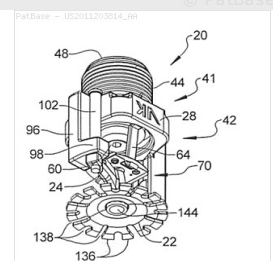
4) Family number: 49418077 (US2011203814A)

DEFLECTOR CARRIER

Abstract: Source: US2011203814A A sprinkler according to the present disclosure has a movable deflector that is spaced apart from its supporting pins by a carrier member. The spacing apart of the deflector from the pins may allow for the distribution pattern of the fire suppressant to be of a higher quality and reduce and/or minimize the possibility of voids or discontinuities in the distribution pattern.

Probable Assignee: VIKING CORP

Earliest Publication Date: 20110825



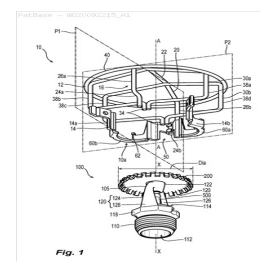
5) Family number: 78768771 (WO20092215A1)

SPRINKLER GUARD FOR FIRE PROTECTION SPRINKLER ASSEMBLIES

Abstract: A sprinkler guard for protection of a fire protection sprinkler to define one or more dimensional relationships between the guard and the sprinkler. The sprinkler guard includes a cage that defines an internal volume for housing operational components of the sprinkler including a fluid deflector and thermally responsive trigger. The sprinkler guard locates the deflector within the internal volume with an upper boundary of the cage spaced at a clearance distance from the fluid deflector and a lower boundary of the cage located between the deflector member and a fluid outlet of the sprinkler frame body. Affixed to the cage is a clamp assembly defining a hinged relationship for securing the sprinkler guard to the fire protection sprinkler and housing components of the sprinkler guard cage.

Probable Assignee: MINIMAX VIKING RES AND DEVELOPMENT GMBH

Earliest Publication Date: 20200507



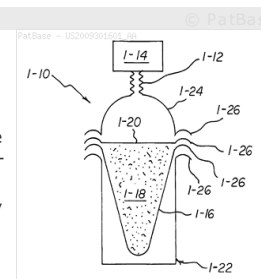
6) Family number: 42001176 (US2009301601A)

APPARATUS AND METHOD FOR USING TETRAZINE-BASED ENERGETIC MATERIAL

Abstract: Source: US2009301601A The present invention comprises apparatus and methods employing a gas produced from a tetrazine-based energetic material such as that known as "BTATz" containing 3;6-BtS(1H-1,2,3,4-Tetrazol-5-ylamino)1-,2,4,5-tetrazine 3;6-BtS(1H-1,2,3,4-Tetrazol-5-ylamino)1-,2,4,5-tetrazine or salts thereof. The tetrazinebased energetic material is ignited through the use of a percussion cap, a piezoelectric crystal or a battery-supplied electric spark or by encapsulating it in a container that is then exposed to a burning flame. The gas produced upon ignition is employed a propellant such as to inflate life rafts, life vests, emergency evacuation slides, tires, air bags and other inflatable devices. The gas produced upon ignition is alternatively employed to power an engine and many other applications such as a fire suppressant.

Probable Assignee: HALKEY ROBERTS CORP

Earliest Publication Date: 20080710



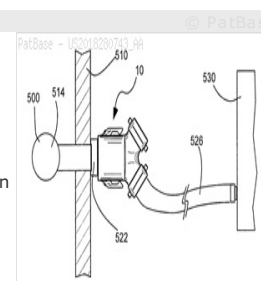
7) Family number: 71412879 (US2018280743A)

SYSTEM AND METHOD FOR PROVIDING A FIRE DEPARTMENT CONNECTION (FDC)

Abstract: Source: US2018280743A A system and method for providing a fire department connection (FDC) to a building fire sprinkler and/or standpipe system comprising carrying and transporting the FDC on a pumper truck with the fire department. The FDC is removed from the pumper truck and coupled to the inlet of the building with a quick-connect. The quick connect is capable of releasably coupling the FDC to the building inlet of a building fire sprinkler and/or standpipe system. When finished, the FDC is removed from the inlet of the building and replaced on the pumper truck. Thus, the FDC remains in the custody of the fire department

Probable Assignee: WALKER KARL

Earliest Publication Date: 20181004



8) Family number: 64906325 (DE202016006856U1)

FEUERLOESCH-AGGREGAT FIRE EXTINGUISHING UNIT (MACHINE TRANSLATION)

Abstract: Source: DE202016006856U1 HAUPTANSPRUCH (1-12) "Feuerloesch-Aggregat" als stationaere oder mobile Basiseinheit, in Form eines Einbau-, oder Anbauteils, als festes oder bewegliches Bauteil, ferngesteuert oder von Hand bedient, hergestellt aus in der Regel Stahlbautypischen Konstruktionen wie Trag-, oder Fachwerkrahmen, Behaeltern und Kammern aus Stahl oder hochfesten Sonderstaehlen, Aluminium, GFK- od. CFK-Werkstoffen oder auch aus die "Feuerloesch-Aggregate" umschliessenden Stahlbetonbauteilen oder auch Geschosshohen-Stahlbetonsegmenten, dadurch gekennzeichnet, dass eine Basiseinheit je nach Anwendungsfall und ihrem technischen Einsatzgebiet entsprechend, mittels eingefuegten, aufgesetzten, untergehaengten oder auch sonstwie angebauten "Feuerloesch-Aggregaten" in der Bauart eines Wasserwerfers, Monitors, einer Wassernebel-Loeschanlage oder einer sonstigen Feuerloescheinrichtung, starr, beweglich oder auch 3-dimensional wirkend an einer der vorgenannten Unterkonstruktionen betriebsbereit montiert ist. Main claim (1-12) "fire fighting unit" as stationary or mobile base unit, in the form of an installation or part of cultivation, as fixed or movable parts, controlled remotely or manually operated, made from generally Stahlbautypischen structures such as base, or timber frames, containers and chambers from steel or high-strength special steels, aluminium, GRP or CFRP materials or reinforced concrete members bounding from the "fire fighting units" or also Geschosshohen steel concrete segments, characterized by the fact that one base unit depending on the application and its technical application according to, by means of inserted, patch, suspended, or otherwise also built "fire units" in the construction of a water pitcher, monitor, a water mist extinguishing system or an other fire extinguishing, rigid, flexible or even 3-dimensional acting on one of the aforementioned substructures ready mounted is.

Probable Assignee: NOERES MICHAEL

Earliest Publication Date: 20170216